

# Chapter 4

## Installation, Operation and Maintenance Planning

This chapter emphasizes the importance of creating installation, and operation and maintenance plans to increase the efficiency and longevity of BMPs. This section gives a template for site information and an operation and maintenance schedule logbook page.

### 4.1. Installation

Before installation begins, an installation plan should be created to include such details as:

- Person(s) responsible for installation
- Engineering design
- Cost of installation
- Equipment required
- Precautionary plans (for encountering water, bedrock, etc.)
- Schedule
- Permit applications
- Persons to be contacted:
  - Well in advance of installation
    - DIGSAFE
    - Utility companies
    - Permitting agencies
    - Local DPW
    - Property owner
    - Manufacturer
  - Day of installation
    - Police/Fire
    - Utility companies
    - Abutters/Nearby Business

### 4.2. Operation and Maintenance

Before installation, an operation and maintenance logbook should be created with a BMP maintenance schedule and procedure to include such details as:

- BMP owner(s) and contact information
- Person(s) responsible for operation/maintenance
- Definition of maintenance tasks and required equipment
- Schedule of maintenance tasks
- Cost of maintenance & source(s) of continued funding
- Manufacturer maintenance contract, if applicable
- Health and safety plan for maintenance personnel
- Persons to be contacted:
  - In case of question or emergency
  - For routine record keeping, or transmittal of maintenance log

Documented details of project information, inspection, and maintenance routines are an important part of ensuring extended BMP efficiency. Accurate project records are helpful in case of property ownership changes, or operation or maintenance issues. Log templates for product specific BMPs are typically available from the manufacturer. An example of a project information and maintenance log sheet is given below in Table 4.1.

Table 4.1. Example of site and contact information, and inspection/maintenance log.

Product Reference Number:				
Site Name:				
Site Location:				
Installation Date:				
Owner:		Contractor:		
Contact Name:		Contact Name:		
Company Name:		Company Name:		
Telephone:		Telephone:		
Fax:		Fax:		
Address:		Address:		
Specifications/ Maintenance Instructions:				
Maintenance Log				
Date	Initials/ Organization	Inspection Observations	Maintenance Activity Performed	Comments
				...
Notes:				

### 4.3. Operation Monitoring

It is often desirable to monitor the operation of an installed BMP. Monitoring will ensure that maintenance is being performed correctly, that the installed BMP is operating as intended (according to any manufacturer warranty and protective of downstream water quality), and that the body of literature on BMPs continues to grow. Local conservation commissions, volunteer watershed groups, performance verification programs, such as the EPA's Environmental Technology Verification (ETV) Program (<http://www.epa.gov/etv>), or NH DES staff may be available to assist with the development of a monitoring plan.